

Demographic		Baseline		Posttest		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Sample	N	100		100		100	
	Age (years)	21.5	1.2	21.5	1.2	21.5	1.2
	Gender						
	Male	50		50		50	
Baseline	Pretest	1.5	0.5	1.5	0.5	1.5	0.5
	Posttest	1.5	0.5	1.5	0.5	1.5	0.5
	Follow-up	1.5	0.5	1.5	0.5	1.5	0.5
	Mean	1.5	0.5	1.5	0.5	1.5	0.5
Posttest	Pretest	1.5	0.5	1.5	0.5	1.5	0.5
	Posttest	1.5	0.5	1.5	0.5	1.5	0.5
	Follow-up	1.5	0.5	1.5	0.5	1.5	0.5
	Mean	1.5	0.5	1.5	0.5	1.5	0.5
Follow-up	Pretest	1.5	0.5	1.5	0.5	1.5	0.5
	Posttest	1.5	0.5	1.5	0.5	1.5	0.5
	Follow-up	1.5	0.5	1.5	0.5	1.5	0.5
	Mean	1.5	0.5	1.5	0.5	1.5	0.5

In re application of

Attorney Docket Q64375

Group Art Unit: Not Assigned

Examiner: Not Assigned

For: MULTIPLIER ARRANGEMENT, SIGNAL MODULATOR AND TRANSMITTER

Commissioner for Patents
Washington, D.C. 20231

Prior to examination, please amend the above-identified application as follows:

Please insert the following section headings:

Page 1,after the title, insert the heading:

before the fourth paragraph beginning with "It is therefore an object" insert the heading:

Page 3, before the fourth paragraph beginning with "The above mentioned" insert the heading:

Brief Description of the Drawings

Detailed Description of the Invention

Please enter the following amended claims:

8. (Amended)Signal modulator (SM) adapted to generate a high-frequency output signal from analog phase information, said signal modulator including

- 2

- a multiplier arrangement (MUXER) adapted to receive said analog phase information and said set of high-frequency local oscillator signals and to generate from it a high-frequency phase vector (PV),

characterised in that

- said multiplier arrangement is further adapted in accordance with claim 1
- said signal modulator further includes an envelope limiter (EL) adapted to transform said high-frequency phase vector into said high-frequency output signal .

9. (Amended)Signal modulator (SM) according to claim 4 characterised in that said signal modulator (SM) includes a control circuit (CC) adapted to receive said phase signal (ϕ) and to derive therefrom said respective control signals (c1,c2,c3,c4) for provision to said multiplier arrangement.

12. (Amended)Transmitter (TX) including

- a transmit data source adapted to deliver transmit data to
- a phase accumulator (PAC) of said transmitter (TX) , said phase accumulator (PAC) being adapted to determine from said transmit data a phase signal (ϕ) for delivery to
- an analog pulse shaper (BAP) of said transmitter (TX), said analog pulse shaper being adapted to generate from said phase signal (ϕ) analog phase information for delivery to

PRELIMINARY AMENDMENT
Attorney Docket Q64375

- a signal modulator (SM) of said transmitter being adapted to generate a high-frequency output signal from said analog phase information for delivery to
 - a power amplifier (PA) of said transmitter being adapted to amplify said high-frequency output signal for further transmission to a receiver
- characterised in that
- said analog pulse shaper is further adapted to generate said analog phase information as two balanced analog signals (B,B),
 - said signal modulator is further adapted in accordance with claim 9.

IN THE ABSTRACT:


Please delete the present Abstract of the Disclosure and replace it with the following new Abstract of the Disclosure.

[illegible]

REMARKS

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,


David J. Cushing
Registration No. 28,703

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Date: May 16, 2001

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Please insert the following section headings:

Page 1, after the title, insert the heading:

Background of the Invention

before the fourth paragraph beginning with "It is therefore an object" insert the heading:

Summary of the Invention

Page 3, before the fourth paragraph beginning with "The above mentioned" insert the heading:

Brief Description of the Drawings

Page 4, before the third paragraph beginning with "A signal modulator" insert the heading:

Detailed Description of the Invention

IN THE CLAIMS:

The claims are amended as follows:

3. (Amended) Multiplier arrangement (MUXER) according to claim 1 ~~or claim 2~~ characterised in that said multiplier arrangement (MUXER) is further adapted to receive a set of differential high frequency local oscillator signals (LO1-LO3, LO2-LO4, LO3-LO1, LO4-LO2),

said multiplier arrangement (MUXER) thereby includes a pair of output terminals (outmux1,outmux2) on which said high-frequency phase vector (PV) is provided as a differential high-frequency phase vector.

8. (Amended)Signal modulator (SM) adapted to generate a high-frequency output signal from analog phase information, said signal modulator including

- a pair of input terminals (SM1, SM2) to which said analog phase information is provided
- a quadrature generator (QG) adapted to generate a set of high-frequency local oscillator signals (LO1,LO2,LO3,LO4), which are 90 degrees in phase shifted with respect to each other,
- a multiplier arrangement (MUXER) adapted to receive said analog phase information and said set of high-frequency local oscillator signals and to generate from it a high-frequency phase vector (PV),
characterised in that
 - said multiplier arrangement is further adapted in accordance ~~to any of the claims 1 to 3~~ with claim 1
 - said signal modulator further includes an envelope limiter (EL) adapted to transform said high-frequency phase vector into said high-frequency output signal .

9. (Amended)Signal modulator (SM) according to ~~claims 4 and 8~~ claim 4 characterised in that said signal modulator (SM) includes a control circuit (CC) adapted to receive said phase signal (ϕ) and to derive therefrom said respective control signals (c1,c2,c3,c4) for provision to said multiplier arrangement.

12. (Amended)Transmitter (TX) including

- a transmit data source adapted to deliver transmit data to
- a phase accumulator (PAC) of said transmitter (TX) , said phase accumulator (PAC) being adapted to determine from said transmit data a phase signal (ϕ) for delivery to
- an analog pulse shaper (BAP) of said transmitter (TX), said analog pulse shaper being adapted to generate from said phase signal (ϕ) analog phase information for delivery to
- a signal modulator (SM) of said transmitter being adapted to generate a high-frequency output signal from said analog phase information for delivery to
- a power amplifier (PA) of said transmitter being adapted to amplify said high-frequency output signal for further transmission to a receiver

characterised in that

- said analog pulse shaper is further adapted to generate said analog phase information as two balanced analog signals (B,B),
- said signal modulator is further adapted in accordance ~~to any of the claims 9 to 11~~ with claim 9.

IN THE ABSTRACT OF DISCLOSURE:

The abstract is changed as follows:

MULTIPLIER ARRANGEMENT, SIGNAL MODULATOR AND TRANSMITTER
ABSTRACT

A multiplier arrangement (MUXER) is adapted to generate from analog phase information and from high-frequency local oscillator signals, components of a high-frequency phase vector (PV), and to synthesise said high-frequency phase vector (PV) from said components within a summing means is further adapted to provide said high-frequency phase vector (PV) as a vector which is making an excursion alongside the contours of a square within the complex plane during a first category of predetermined transitions of a phase signal (ϕ) on which said analog phase information is dependent. A signal modulator including such a multiplier arrangement as well as a transmitter are described as well.

Q64375-0164